

CLAIMS

1. A testing apparatus comprising:
a base controller comprising a plurality of connectors that are connectable to a tester;
a test controller comprising a plurality of connectors that are connectable to an electronic device; and
wireless means for communicating test data wirelessly between said base controller and said test controller.
2. The apparatus of claim 1 further comprising a plurality of said test controllers, each said test controller comprising a plurality of connectors that are connectable to one of a plurality of said electronic devices,
wherein said wireless means communicates between said base controller and each of said test controllers.
3. The apparatus of claim 1, wherein at least a portion of said test controller is disposed on said electronic device.
4. The apparatus of claim 1, wherein said apparatus comprises an enclosure that is sealable.
5. The apparatus of claim 1, wherein said electronic device comprises a semiconductor die.
6. The apparatus of claim 1 further comprising a plurality of said electronic devices, and wherein each said die comprises a semiconductor die, and said dies compose an unsingulated semiconductor wafer.
7. The apparatus of claim 1, wherein said wireless means comprises a first transceiver electrically connected to said test controller and a second transceiver electrically connected to said base controller.

8. The apparatus of claim 1 further comprising a plurality of probes, each disposed to contact a terminal of said electronic device, wherein said plurality of connectors that are connectable to said electronic devices are electrically connected to said probes.
9. The apparatus of claim 1, wherein said test data includes at least one of test vectors or test commands.
10. A method of testing a plurality of electronic devices, said method comprising:
receiving test data at a base controller;
wirelessly transmitting said test data from said base controller to a plurality of test controllers;
writing said test data from each of said test controllers to one of said electronic devices.
11. The method of claim 10 further comprising:
reading to said test controllers response data generated by said electronic devices; and
wirelessly transmitting said response data from said test controllers to said base controller.
12. The method of claim 11 further comprising:
sending said test data from a tester to said base controller; and
sending said response data from said base controller to said tester.
13. The method of claim 10, wherein said test data includes at least one of test vectors or test commands.

14. A test system comprising:
 - a tester;
 - a test station;
 - a communications link between said tester and said test station; and
 - a substrate disposed in said test station, said substrate comprising:
 - a base controller in communication with said communications link;
 - a plurality of test controllers each comprising a plurality of connectors that are connectable to one of a plurality of electronic devices to be tested; and
 - wireless means for communicating test data wirelessly between said base controller and said plurality of test controllers.
15. The test system of claim 14, wherein at least a portion of one of said test controllers is disposed on one of said electronic devices.
16. The test system of claim 14, further comprising a plurality of probes, each disposed to contact a terminal of one of said electronic devices, wherein said plurality of connectors that are connectable to one of said electronic devices are electrically connected to said probes.
17. The test system of claim 14 further comprising a plurality of said testers, each in communication with said communications link.
18. The test system of claim 17 further comprising a plurality of said test stations, each in communication with said communications link.
19. The test system of claim 18, wherein said electronic devices are semiconductor dies.
20. The test system of claim 19, wherein said semiconductor dies compose an unsingulated semiconductor wafer.
21. The test system of claim 14, wherein said test data includes at least one of test vectors or test commands.

22. The test system of claim 14 further comprising a cassette in which said substrate is disposed.
23. The test system of claim 22, wherein said cassette is hermetically sealable.
24. The test system of claim 14, wherein said substrate composes a probe card.
25. A method of testing a plurality of electronic devices, said method comprising:
receiving at a first base controller from a first tester first test data for performing a first test;
wirelessly transmitting said first test data from said first base controller to a plurality of first test controllers;
performing said first test on a first set of said electronic devices;
receiving at said first base controller from a second tester second test data for performing a second test on said first set of electronic devices;
wirelessly transmitting said second test data from said first base controller to said plurality of first test controllers; and
performing said second test on said first set of electronic devices.
26. The method of claim 25 further comprising:
wirelessly transmitting results of said first test from each of said first set of test controllers to said first base controller; and
wirelessly transmitting results of said second test from each of said first set of test controllers to said first base controller.

27. The method of claim 25 further comprising:
receiving at a second base controller from said first tester said first test data for performing said first test;
wirelessly transmitting said first test data from said second base controller to a plurality of second test controllers;
performing said first test on a second set of said electronic devices;
receiving at said second base controller from said second tester said second test data for performing said second test;
wirelessly transmitting said second test data from said second base controller to said plurality of second test controllers; and
performing said second test on said second set of electronic devices.
28. The method of claim 27 further comprising:
wirelessly transmitting results of said first test from each of said second set of test controllers to said second base controller; and
wirelessly transmitting results of said second test from each of said second set of test controllers to said second base controller.
29. The method of claim 25, wherein said test data includes at least one of test vectors or test commands.
30. A test system comprising:
a plurality of testers;
a plurality of base controllers, each comprising a wireless link with a plurality of electronic devices to be tested; and
a plurality of communications links between ones of said testers and ones of said base controllers,
wherein a data transfer rate of each of said communications link is selected to optimize data throughput of said test system.

31. The test system of claim 30, wherein at least two of said communications link connect one of said base controller to at least two of said testers.
32. The test system of claim 30, wherein at least two of said communications link connect one of said testers to at least two of said base controllers.
33. The test system of claim 30, wherein optimizing data throughput of said test system comprises balancing data throughput of said test system.
34. The test system of claim 30, wherein said first wireless link comprises at least one of a signal repeater or a cable interconnecting broadcast stations.
35. A method of making a semiconductor die, said method comprising:
providing a semiconductor wafer comprising a die;
disposing said wafer in a holder;
receiving test data at a base controller associated with said holder;
wirelessly transmitting said test data from said base controller to a test controller; and
testing said die by writing said test data from said test controller to said die.
36. The method of claim 35, wherein:
said wafer comprises a plurality of said dies,
said step of wirelessly transmitting said test data comprises wirelessly transmitting said test data to a plurality of said test controllers, and
said step of testing comprises testing a set of said dies by writing said test data from one of said test controllers to one of said dies of said set.
37. The method of claim 35, wherein said step of testing further comprises reading from said die to said test controller response data generated by said die.
38. The method of claim 37 further comprising wirelessly transmitting said response data to said base controller.

39. A die made using the method of claim 35.